Attorney's Docket No.: 06975-074002 / Security 05-Applicant: Christopher J. Wright et al. CON

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Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1-3. (Cancelled)

(Currently Amended) The method as in claim 1, A method for securing an access 4. provider, the method comprising:

monitoring communications with at least one access provider for a partially-completed connection transaction; and

terminating the partially-completed connection transaction when the partially-completed connection transaction remains in existence for a period of time that exceeds a threshold period of time,

wherein the monitoring comprises detecting partially-completed connection transactions that occur when an access requestor initiates a connection transaction and the access requestor subsequently fails to send a reply.

- 5. (Original) The method as in claim 4, wherein the monitoring comprises detecting partially-completed connection transactions that occur when an access requestor initiates a connection transaction based on a return address that differs from an actual return address of the access requestor.
- 6. (Original) The method as in claim 5, wherein the monitoring comprises detecting partially-completed connection transactions wherein the return address is an Internet protocol address that differs from the actual return address of the access requestor.

7-16. (Cancelled)

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17. (Currently Amended) The system of claim 15, A system for securing an access provider, comprising:

means for monitoring communications with at least one access provider for a partiallycompleted connection transaction; and

means for terminating the partially-completed connection transaction when the partially-completed connection transaction remains in existence for a period of time that exceeds a threshold period of time.

wherein the means for monitoring comprises means for detecting partially-completed connection transactions that occur when an access requestor initiates a connection transaction and the access requestor subsequently fails to send a reply.

18. (Original) The system of claim 17, wherein the means for monitoring comprises means for detecting partially-completed connection transactions that occur when an access requestor initiates a connection transaction based on a return address that differs from an actual return address of the access requestor.

19-23. (Cancelled)

24. (Currently Amended) The system of claim 21, A system for securing an access provider, comprising:

a monitoring component that is structured and arranged to monitor communications with at least one access provider for a partially-completed connection transaction; and

a terminating component that is structured and arranged to terminate the partiallycompleted connection transaction when the partially-completed connection transaction remains in existence for a period of time that exceeds a threshold period of time,

wherein the monitoring component comprises a detection component that is structured and arranged to detect partially-completed connection transactions that occur when an access requestor initiates a connection transaction and the access requestor subsequently fails to send a reply.

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25. (Original) The system of claim 24, wherein the monitoring component comprises a detection component that is structured and arranged to detect partially-completed connection transactions that occur when an access requestor initiates a connection transaction based on a return address that differs from an actual return address of the access requestor.

26. (Original) The system of claim 25, wherein the monitoring component comprises a detection component that is structured and arranged to detect partially-completed connection transactions wherein the return address is an Internet protocol address that differs from the actual return address of the access requestor.

27-34. (Cancelled)

(Currently Amended) The system of claim 21, A system for securing an access 35. provider, comprising:

a monitoring component that is structured and arranged to monitor communications with at least one access provider for a partially-completed connection transaction; and

a terminating component that is structured and arranged to terminate the partiallycompleted connection transaction when the partially-completed connection transaction remains in existence for a period of time that exceeds a threshold period of time,

wherein the monitoring component and the terminating component are included in a switch that receives communications from a host computer system.

- 36. (Cancelled)
- (New) A method for monitoring connections with an access provider, the method 37. comprising:

receiving, at an access provider, a request, from an access requestor, to establish a connection with the access provider:

in response to receiving the request, sending, by the access provider to the access requestor, an acknowledgement message;

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dedicating, by the access provider, connectivity resources to establishing a connection with the access requestor;

waiting for a response, from the access requestor, to the acknowledgement message to establish a connection with the access requestor using the connectivity resources dedicated to establishing a connection with the access requestor;

measuring a time period based on an amount of time the access provider has been waiting for the response from the access requestor;

comparing the measured time period to a threshold time period;

based on comparison results, determining whether the measured time period exceeds the threshold time period; and

in response to determining that the measured time period exceeds the threshold time period, making the connectivity resources dedicated to establishing a connection with the access requestor available for use in establishing a connection with another access requestor.

38. (New) The method of claim 37 wherein:

dedicating, by the access provider, connectivity resources to establishing a connection with the access requestor comprises opening a communication port for establishing a connection with the access requestor; and

making the connectivity resources dedicated to establishing a connection with the access requestor available for use in establishing a connection with another access requestor comprises resetting the communication port.

- 39. (New) The method of claim 37 wherein measuring the time period based on the amount of time the access provider has been waiting for the response from the access requestor comprises measuring a time period starting from receipt of the request, from the access requestor, to establish a connection with the access provider.
- 40. (New) The method of claim 37 wherein measuring the time period based on the amount of time the access provider has been waiting for the response from the access requestor

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comprises measuring a time period starting from sending, by the access provider to the access requestor, the acknowledgement message.

41. (New) The method of claim 37 wherein measuring the time period based on the amount of time the access provider has been waiting for the response from the access requestor comprises measuring a time period starting from dedicating, by the access provider, connectivity resources to establishing a connection with the access requestor.

42. (New) The method of claim 37 wherein:

receiving, at the access provider, the request, from the access requestor, to establish a connection with the access provider comprises receiving, at the access provider, a SYN request, from the access requestor, to establish a TCP connection with the access provider;

sending, by the access provider to the access requestor, the acknowledgement message comprises sending, by the access provider to the access requestor, a SYN acknowledgement;

dedicating, by the access provider, connectivity resources to establishing a connection with the access requestor comprises opening a communication port for establishing a TCP connection with the access requestor;

waiting for the response, from the access requestor, to the acknowledgement message to establish a connection with the access requestor using the connectivity resources dedicated to establishing a connection with the access requestor comprises waiting for a reply acknowledgement from the access requestor; and

making the connectivity resources dedicated to establishing a connection with the access requestor available for use in establishing a connection with another access requestor comprises resetting the communication port such that the communication port becomes available for use in response to a new SYN request received from another access requestor.

43. (New) The method of claim 37 further comprising changing the threshold time period for subsequent comparisons.

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(New) The method of claim 37 further comprising establishing a connection with 44. another access requestor using the connectivity resources dedicated to establishing a connection with the access requestor, establishing the connection occurring subsequent to dedicating the connectivity resources and prior to establishing a connection with the access requestor.

45. (New) The method of claim 37 further comprising:

in response to determining that the measured time period exceeds the threshold time period:

storing information related to the access requestor; and

blocking future requests from the access requestor to establish a connection with the access provider based on the stored information.

46. (New) The method of claim 45 wherein:

storing information related to the access requestor comprises storing an IP address used by the access requestor; and

blocking future requests from the access requestor to establish a connection with the access provider based on the stored information comprises blocking future requests received from an IP address corresponding to the stored IP address.

47. (New) The method of claim 37 further comprising:

in response to determining that the measured time period exceeds the threshold time period, stopping waiting for the response, from the access requestor, to the acknowledgement message.

- 48. (New) The method of claim 37 wherein the measuring, comparing, and determining are performed by the access provider.
- 49. (New) The method of claim 37 wherein the measuring, comparing, and determining are performed by a switch connected to the access provider.